



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,912	10/16/2003	Robert Joseph Wehner	9539-000074	7469

27572 7590 02/23/2005

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
----------	--------------

3679

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,912

Applicant(s)

WEHNER, ROBERT JOSEPH

Examiner

Greg Binda

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20041229</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3679

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

2. The replacement drawings filed December 29, 2004 are objected to because:

a. They include crossed out reference numerals 10 & 70 and an unused lead line (that of numeral 70) which make the drawings unsuitable for publication.

b. Per paragraph 0018, Fig. 4 is supposed to show a boot seal 10a that lacks discrete radially extending ribs, but the boot seal 10a does not look like the boot seal 10 minus its ribs 72. Instead the boot seal 10a has some unidentified conically shaped feature (indicated by the lead lines of reference numerals 16, 50 & 52) in place of ribs 72.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

Art Unit: 3679

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because:
 - a. Page 4, lines 12 & 13 states “the exemplary output shaft 24 is illustrated to include spline elements 26”. However, Fig. 2 shows the spline elements 26 are formed on the externally splined shaft 20.
 - b. Page 5, lines 8 & 9, “the splined shaft 24” should be changed to “the splined shaft 20”.
 - c. Page 5, lines 15 & 16 states the flange seal portion 50 is configured to create a primary seal against the shaft 20”. However Fig. 2 shows the flange seal portion 50 is configured to create a primary seal against the output shaft 24.
 - d. Page 5, lines 21 & 22 states “the attachment portion 54 is configured to resiliently expand over the shaft 20”. However Fig. 2 shows the attachment portion 54 is configured to resiliently expand over the output shaft 24.
 - e. Changes made at page 6, lines 1 & 2 are nonsensical. The description there should be changed back to its original state.
 - f. Page 7, line 11, “the shaft 20” should be changed to “the externally splined shaft 20”.
 - g. Page 7, line 21, the phrase “the boot seal 10a” should be changed to “a boot seal 10a”.
 - h. Page 7, line 21, the numeral 72 should be deleted.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has not pointed out where the following limitations are supported, nor does there appear to be a written description of the limitations in the application as originally filed.

- a. Lines 3 & 4: “the first and second shafts are slidably . . . connected”
- b. Line 5: “a housing into which one of the . . . shafts is rotatably supported”
- c. Line 10: “a second portion that is coupled to a distal end of the first portion”. (The only “distal end” mentioned in the specification is the distal end 66 of the annular lip 52. There is no mention of the distal end 66 being particular to the first portion 60 of the annular lip 52. Nor is there any mention of the second portion 62 of the annular lip being “coupled to” the distal end 66 of the annular lip.)
- d. Lines 10 & 11: “a second portion . . . which extends circumferentially about the first shaft”

Claim Rejections - 35 USC § 102

7. Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Krisher, US 6,319,132. The figure shows a mechanical joint comprising: a first shaft 14 having a mating groove (see where the boot 32 is attached to the first shaft 14) formed thereon; a second shaft 30 coupled to the first shaft such that the shafts are slidably but non-rotatably connected; a housing 36 into which the first shaft 14 is rotatably supported; a boot seal 32 having a coupling end (the right end), a flange seal (the left end), an annular lip (the radially extending portion of the boot at its left end) and a convoluted body portion (the intermediate portion of the boot), the coupling end being disposed about, and attached to, the second shaft 30 by a boot clamp. The figure shows the annular lip includes two portions (its inner and outer portions) and that it is axially spaced from the housing 36. The figure shows the annular lip of the boot 32 is constricted into sealing engagement with the first shaft 14.

Response to Arguments

8. Applicant's arguments filed December 29, 2004 have been fully considered but they are not persuasive. Applicant argues that Krisher fails to show the claimed invention because Krisher shows the boot seal 32 attached to the first shaft 14 with a boot clamp. However, there is nothing in the claim which precludes such an attachment. Instant claim 18 merely requires that the boot seal be constricted about the shaft. It does not specify that said constriction be made without a boot clamp. Furthermore, even if the claim did limit the invention in the way applicant argues, the claim would still be unpatentable because a clampless connection between a boot and a shaft is an art recognized equivalent of a connection which uses a clamp (see Krude et al, US

Art Unit: 3679

4,456,269, Figs. 2 & 3). As such, modifying Krisher to use a clampless connection would have been obvious to one of ordinary skill in the art at the time of the invention.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Creek shows a mechanical joint.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

Art Unit: 3679

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda
Primary Examiner
Art Unit 3679